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AN EXECUTIVE AGENCY OF THE HOME OFFICE

FAO: KRIS KARCHER
COOS COUNTY
USA



The Forensic Science Service
 Washington Hall, Euxton
 Chorley PR7 6HJ

Telephone: 01257 224300
 Facsimile: 01257 274752

CHORLEY LABORATORY

Our Ref: L/01/38/B/1/PJS/IMB
 Your Ref:
 Date: 03 October 2001

DESTRUCTION OF SAMPLES**PERISHABLE SAMPLES SUBMITTED FOR ANALYSIS**

Certain samples constitute a potential health risk. With the concurrence of the Home Office, it has been decided that such samples will not be submitted to the Courts unless specifically requested by the Defence. (This is an extension of the procedures for the disposal of blood samples previously agreed by the Lord Chief Justice, the Director of Public Prosecutions and the former Chief Metropolitan Magistrate).

The Laboratory has examined one or more of the perishable personal samples listed below, the destruction of which is required by Section 64 of the Police and Criminal Evidence Act, (1984). They will not be returned to you but will be destroyed in due course unless we are requested by the Defence to preserve them. You should notify the Defence Solicitors in accordance with Home Office Circulars 40/73 and 74/82, which allow a period of 21 days in which notice in writing must be given, by the defendant or his legal representative, to the laboratory to prevent the samples being destroyed.

- blood samples
- saliva samples
- swabs from body orifices
- other swabs bearing potentially hazardous material
- vomit, faeces, urine, body tissues
- mounted control hair samples

Unless a written request is received, within 30 days from the date of this letter, for the perishable sample(s) to be retained it/they will be destroyed. A record detailing destruction of the item(s) will be maintained at the laboratory.

CHIEF EXECUTIVE: DR JANET THOMPSON CB FInstP

HEADQUARTERS: PRIORY HOUSE GOOCH STREET NORTH BIRMINGHAM B5 6QO
 LABORATORIES: BIRMINGHAM CHEPSTOW CHORLEY HUNTINGDON LONDON WETHERBY

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- Autopsy report
- Laboratory reports
- Significant witness statements (ie last to see Leah, body finder(s), etc)
- Statements/interview transcripts with suspect(s)
- Profilers reports
- Any other expert reports

The FSS offers a case review service, chargeable at an hourly rate and would need to agree formal business terms with yourself before I could commence the work.

I estimate that to carry out your review would cost in the region of £2000 - £4000 and take up to six weeks from provision of as much as possible of the above information.

The outcome of my review would be a written report offering expert assessment of the findings to date with possible recommendations for further scientific work.

Any recommended work could be carried out by any laboratory of your choice and is independent of the review itself. The FSS may be prepared to carry out any such work, subject to your later agreement, which would be subject to further set charges. I cannot of course, in making recommendations for work that might assist your investigation, guarantee the tests will work. However, the written review would indicate costs, time scales and typical success rates for any recommended further tests.

Please indicate if you wish me to carry out a review and I will arrange for our overseas business manager to arrange terms.

I look forward to hearing from you.

Yours sincerely,

Dr. John Davison
Major Crime Service, Specialist Advisor

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CHORLEY
LABORATORY

LAB REF L/01/38/B/1/IMB

STATEMENT OF WITNESS

(Criminal Justice Act 1967,s.9; M.C.Act 1980, ss. 5A(3A) and 5B; M.C. Rules 1981, R.70)

STATEMENT OF **PHILIP JOHN SEAMAN**Age of witness (if over 18 enter "OVER 18") **OVER 18 (4.7.59)**Occupation of witness **FORENSIC SCIENTIST**

The Forensic Science Service, Washington Hall, Euxton, CHORLEY PR7 6HJ

This statement (consisting of 7 page(s) each signed by me) is true to the best of my knowledge and belief and I make it knowing that, if it is tendered in evidence, I shall be liable to prosecution if I have wilfully stated in it anything which I know to be false or do not believe to be true.

Dated the **3** day of **OCTOBER 2001**

Signature

I hold a Bachelor of Science (Hons) degree in Applied Biology, a Master of Science degree in Forensic Science and I am a Doctor of Philosophy. I am also a Chartered Biologist and Member of the Institute of Biology. I have worked as a Forensic Scientist since 1985.

On 29 March 2001, a number of items were received at the laboratory in relation to the death of Leah FREEMAN.

Brief Circumstances

I assume that details of this case will be familiar to any reader of this report. However the key features are as follows.

Leah FREEMAN disappeared on the 29 June 2000 and was last seen by a friend at around 9.00 pm.

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**CHORLEY
LABORATORY**

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Her boyfriend Nick McGUFFIN was due to collect her from that address at that time and arrived shortly after she had left her friends house.

Her body was found on 3 August 2000 in a decomposed state, lying in undergrowth some distance outside town. No cause of death has been established.

Leah FREEMAN was due to attend a medical examination the following morning (30 June 2000), which had been arranged by her mother in relation to birth control as it was believed that she was sexually active. It is suggested that Leah was very worried about this appointment and did not wish to attend.

This led to questions being posed as to whether she may have been pregnant. Nick McGUFFIN has been strongly suspected of knowing something about her disappearance but to date no persons have been charged.

Purpose of laboratory examination

On 22 March 2001 I attended a case conference with Kris Karcher Chief Deputy Medical Examiner, Coos County and Detective Cal Mitts of the Coos Bay Police Department, and Dr J A Davison of the UK Forensic Science Service at the Chorley laboratory.

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LABORATORY**

LAB REF L/01/38/B/1/IMB

The meeting was held in order to assess the scientific work carried out to date and to identify possible further opportunities for a scientific contribution to the investigation. The results of this review have been previously reported by Dr J A Davison.

Items of clothing and footwear relating to Leah FREEMAN were to be examined for the presence of semen, and any other apparent significant scientific evidence which could assist in establishing the possible identity of her assailant and the circumstances surrounding her death.

From amongst the items received the following were selected for examination.

Right Training shoe EX1 OON-481

Left Training shoe EX2 OON-481

Sports Bra / 214 OON-481

White Top / 213 OON-481

Jeans / 212 OON-481

Items listed above have been examined with the aid of scientific support staff. Forensic Examination record in this case is PJS 1.

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CHORLEY
LABORATORY**LAB REF L/01/38/B/1/IMB****RESULTS OF LABORATORY EXAMINATIONS****Right Shoe EX1 OON-481**

No blood staining was found on this shoe. Other than wear and tear type damage to the shoe there were no signs that the shoe had been recently damaged or scuffed whilst being dragged across the ground.

Left Shoe EX2 OON-481

Traces of blood were found on the underside, towards the inner aspect. An area of diffuse blood staining was found on the lace, approximately 40 centimeters from one end. Areas had been cut from the back of the tongue and ankle, presumably for other tests prior to my examination. In the absence of any DNA profiling results I am unable to assess whether or not any of the remaining blood should be tested further.

The left shoe smells of decay and degradation, in a similar manner to the clothing, whereas the right shoe does not.

It was noted that the linings of both shoes bear several pills of red fibres. Such extraneous fibres could be matched with socks worn with the shoes.

Clothing

The clothing was found to be in a much worse condition than envisaged

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LABORATORY**LAB REF L/01/38/B/1/IMB**

looking at photographs of the deceased where she was found. The garments had an extensive covering of decayed body tissue and fats on the inner surfaces. Some of this had transferred to outer areas possibly due to their having been packaged.

Loose extraneous surface fibres and debris have been recovered from those less contaminated areas on the jeans, vest and bra, however the tapings have not been examined further.

No semen has been found on the vest or bra.

The jeans were tested for semen and none found. This was achieved by using our usual chemical screening method to indicate possible semen followed by extraction of selected areas and preparation of a stained microscope slide to identify sperm. Whilst no semen was found, I cannot exclude the possibility that there may be azospermic semen present, ie semen from a vasectomised male, but I am reasonably sure that there are no sperm on the jeans.

On receipt at the laboratory examination of the jeans indicated the presence of two 'holes' in the seat/crotch area. This damage was presumably present when the body was recovered and not created during laboratory examinations.

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LABORATORY**

LAB REF L/01/38/B/1/IMB

Swabs were taken from the button and zip pull of the jeans fastener, however, these areas were not void of other staining found on the garment and hence may not be suitable for Low Copy Number DNA profiling. These swabs have been retained for return with the other case exhibits.

No specific area of blood staining was found on the garments probably due to the extensive body tissue staining on them. Two areas of more concentrated blood staining were found on the lower back of the vest, but there is nothing to indicate that this has resulted from a specific injury other than decomposition of the body.

Damage to the jeans and vest/bra is consistent with chemical effect on fabrics of body tissue/fats and chemicals leaching from the body over a period of time. Other smaller areas of damage may be rodent bite marks. Areas on the straps and upper back of the vest/ bra indicate the presence of broken elastic threads in the shoulder straps. I am unable to assess whether or not this damage has resulted from contact with a sharp edge or a result of from another mechanism such as rodent action.

Damage to the back of the upper garments whilst not overlapping, could be considered to have occurred whilst the garments were worn together, allowing for some movement between the layers of garments. However,

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LABORATORY**LAB REF L/01/38/B/1/IMB**

with the exception of a cut in the hem of the top, there is nothing to indicate how or when the damage was made. The possibility that Leah was stabbed cannot be eliminated, however, any 'stab' cuts are no longer recognisable due to the decay in the fabrics.

Summary and Conclusion

- 1) There is nothing to indicate the presence of semen on the items examined.
- 2) There is no specific pattern in blood to indicate trauma such as a stabbing assault, although such a possibility cannot be discounted.
- 3) Tapings and swabbings will be retained at laboratory in connection with this case.
- 4) The overall findings provide no additional scientific evidence to assist in addressing the issue as to the cause of LEAH FREEMAN's death or the identity of her assailant.

Signature

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THE FORENSIC SCIENCE SERVICE
Disclosure Index
(Reference Document Nos : FSS-GP-133 and FSS-GS-191)

001503

FSS Reference No L/01/38/B/1

R v

*A tick (✓) in the column to the left of the Description list indicates that such material is in the possession of the FSS, a cross (✗) that it is not.

FSS USE		CPS USE	
<u>DESCRIPTION</u>		<u>COMMENTS</u>	
*	Laboratory submission forms	D	
✓	Records of information gathered at scenes		
✗	Records of continuity of items		
✓	Dates of examinations		
✓	Details of packaging and sealing of items		
✓	Records of material not examined		
✓	Records of work carried out in the laboratory		
✓	Draft Statements		
✓	Documentation of procedures and technical methods		
✗	Databases and surveys		
✗	Records of work done by assistants and checkers		
✗	Intelligence information		
✗	Records concerning other suspects		
✗	Records concerning <i>modus operandi</i>		
✗	Case conference notes		
✗	Notes of conversations and correspondence with police IOs		
✗	Notes of conversations and correspondence with the CPS		
✗	Confidential commercial information		
✓	Administration details, eg case costings, invoices etc		
✗	Other (specify), use Continuation Sheet if necessary		
(D = Disclose to Defence)			
RO P J SEAMAN 		OIC KRIS KARCHER	
Date of completion 03 October 2001		Reviewing lawyer 	
CONTINUATION SHEET USED		Yes <input type="checkbox"/> No <input type="checkbox"/>	

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THE FORENSIC SCIENCE SERVICE

No Sensitive Material Notification

(Reference Document No : FSS-GS-191)

FSS Reference No L/01/38/B/1

R v

**There is no sensitive unused material in the possession of The Forensic
Science Service,
in the above referenced Case**

RO: PHILIP JOHN SEAMAN

Date 03 October 2001

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Client Ref:



The Forensic Science Service

Laboratory Ref: L/01/38/B/1

Identifying Mark for this
document: PS1

FORENSIC EXAMINATION RECORD

This form relates to the internal document GS191

NOTE: Work was carried out by trained assistants using established procedures. A full record of the contribution made by assistants is contained in the case file which comprises of notes made at the time of the examination.

Number of assistants used:

If assistants used please state: 2

Name	Brief details of work done:
Z DAVENPORT	GENERAL EXAMINATION AND NOTE TAKING
C HIGNETT	PHOTO DEPT

Criminal Justice Act 1967, s. 9; Magistrates Court Act 1980, 5A(3A) & 5B; Magistrates Court Rules 1981, R.70 :

I identify this exhibit as that referred to in the statement made and signed by me.

Name (BLOCK CAPITALS) PHILIP JOHN SEAMAN

Signature

Date 03 October 2001

For court use only:

R. v. _____

Exhibit No. _____

Signed: _____

Date: _____

Justice of the Peace/Clerk to _____

Magistrates Court

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Kris Karcher
RN Forensic Nurse Specialist
Chief Deputy Medical Examiner
Coos County Medical Examiners Office
Office of the District Attorney
Coos County Court House
Coquille
OREGON 97423
USA

22 May 2001

Our Ref: L/01/38

Dear Kris,

Re Murder of Leah FREEMAN

Please find enclosed my report concerning the death of Leah Freeman. I apologise for the delay. My original estimate and the advance you presented was for £2530. In the event the cost based on time for the briefing from yourselves, study of the dossiers provided and production of the report amounts to £1870. You are therefore due a refund of £660.

Please refer to the recommendation section at the end of the report. The cost of the recommendations 1,3,5 will be up to £1320. We would therefore require authorisation from yourselves and a cheque for £660 before commencement of this work. Based on a previous understanding that you wished us to carry out such work if my review suggested it was possible we have reserved a "slot" for you and the work could commence immediately on receipt of the authorisation and cheque. I anticipate that this work would be completed within a week or so.

If the above work identifies the presence of significant blood or semen stains then my understanding is that you would wish us to carry out DNA profiling on some of these

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stains and /or the swabs from the trouser button/zip, (recommendations 4,5,6). Such work would require a further agreement. I estimate that the cost of DNA profiling under these circumstances is likely to be in the region of £400 per stain/sample. Such profiling would take up to 5 weeks to complete.

I would recommend that in the event of any DNA profiling we await the outcome of the testing of samples from the clothing before consideration of profiling the suspect samples you have left with us. Furthermore, in view of a degree of commonality between our method of DNA profiling and that used in the laboratory at Oregon it may not be necessary to profile some of the samples where the persons in question have already been done by yourselves.

Although we could carry out recommendations 2, 7, 8 you may prefer these to be done, (if at all), in Oregon. In any event we do not have the items here at this stage.

I look forward to your response. If there is anything you wish to clarify or discuss please contact me by e-mail as before. If you wish to commission the above, or any other work, in order to save time please liaise directly with Paul Chesterman.

Yours sincerely

Dr John Davison
Specialist Advisor

cc. Paul Chesterman, NLE, FSS Birmingham

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Dear Kris

We have completed the work and I'm sorry but the news is all bad, there's no other way to put it.

The clothing is in fact in a much poorer state, despite the vacuum packing, than it appeared that it would be from the photographs. It could be that this is due to cross contamination of one part of the garment by another during recovery or subsequent packaging. The opportunities are not so great as we would have anticipated and we are sorry if we have given you false hopes. To some extent we would appear to be in agreement with your own laboratory.

Jeans

However, we have tested the jeans for semen and found none. This was achieved by using our usual chemical screening method to indicate possible semen, followed by extraction of any possible positive areas and preparation of a stained microscope slide to identify sperm. The entire outside of the jeans was screened in this way. In addition we have extracted the entire crotch region, carried out clean up procedures and microscopically examined the extracts for semen. Again none was found.

We cannot exclude the possibility that there may be azospermic semen present, ie semen from a vasectomised male, but are reasonably sure that **there are no sperm on the jeans.**

The jeans have also been examined for blood and none found. Given the condition of the garment the only area where we would be reasonably sure that there was no blood would be the lower outside legs. This observation is possibly of interest given the finding of blood on the training shoe.

We have swabbed the top button and the zip fastener with a view to possible "supersensitive or LCN" DNA testing. We do not recommend that this be pursued as the items, whilst not contaminated to the same extent as the fabric of the item, nevertheless bears a "patina" of what appears to be body fats. This swab can be returned to you or retained by us according to your wishes. The jeans have also been taped to remove loosely adhering debris and fibres and these tapings will be returned with the items.

Shoes

The shoes do not bear any damage/scuffing or anything to suggest the wearer was struck by a vehicle or dragged along hard ground. This does not of course rule this out but we might have expected to see something if the shoe had been dislodged when the wearer was so attacked or struck by a vehicle.

There is blood still on the underneath of the left shoe, on the lace and on the inside of the shoe in the heel region. We would not conclude that any of this blood had originated by anything other than direct contact with a wet blood stained surface or object.

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The linings of both shoes have several pills of red fibres and such extraneous fibres could be used to link back socks worn on feet within the shoes.

Interestingly the left shoe smells of decomposition and degradation, in a similar manner to the clothing, whereas the right shoe does not. This may indicate that the left shoe was still on the body for some time after death.

Upper clothing

The vest and sports bra are in a very poor condition and although no trace of blood or semen was found it cannot be stated with confidence that none was present. There are damage features to the bra and the top, in positions which do not immediately appear to align, but which could have done so when worn. We cannot confirm that any of these are anything other than animal activity, penetration by growing vegetation or decay. This damage is in the upper back area, between the shoulder blades.

Finally, I am sorry once again that we have not been able to produce the hoped for results. We have tried very hard and in fact have spent significantly more time than we estimated for, (or will charge for). An official statement will follow from Dr Phillip Seaman. Please let us know if there is anything further we can do, and what arrangements you would like for the return of all of the material and items you left with us.

Yours sincerely

John Davison, Major Crime Service Specialist Advisor,

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Kris Karcher
RN Forensic Nurse Specialist
Chief Deputy Medical Examiner
Coos County Medical Examiners Office
Office of the District Attorney
Coos County Courthouse
Coquille
Oregon 97423
USA

4 January 2001

Dear Kris,

Re Homicide Investigation of Leah FREEMAN

I am employed by the Forensic Science Service as a Major Crime Service Specialist Advisor. One of my regular duties is to work with investigators in reviewing cases (cold, stalled or live), in order to identify possible lines for scientific assistance to the investigation.

I have been consulted by DS Taylor of the NCF regarding the murder of Leah FREEMAN. We have discussed the case and she has copied some of your briefing papers to me.

DS Taylor informs me that you would welcome any support or assistance and would be very keen to ensure that any recommendations for further scientific work are taken forward.

I have insufficient knowledge of the case to formulate useful opinions at this stage. However, I could undertake an under review of the scientific contribution to the enquiry to date and then possibly recommend further opportunities.

Any review would be more effective if as much as possible were supplied:

- A briefing from the Senior Investigator (written or verbal) in relation to the investigation to date. This should include victims background, circumstances, suspect(s), lines of enquiry etc.
- Scene photographs and video
- Reports of crime scene examiner(s)
- List of available exhibits
- Plans and maps with significant locations marked

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Kris Karcher
 RN Forensic Nurse Specialist
 Chief Deputy Medical Examiner
 Coos County Medical Examiners Office
 Office of the District Attorney
 Coos County Court House
 Coquille
 OREGON 97423
 USA

J e-mailed
 authorisation
 to continue as
 soon as possible.
 Kris

22 May 2001

Our Ref: L/01/38

Dear Kris,

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Yours sincerely

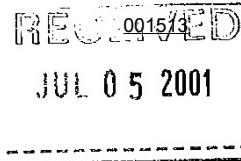
Dr John Davison
Specialist Advisor

cc. Paul Chesterman, NLE, FSS Birmingham

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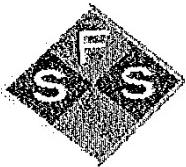
Upper clothing

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Yours sincerely
John Davison, Major Crime Service Specialist Advisor.

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THE FORENSIC SCIENCE SERVICE
WASHINGTON HALL, EUXTON
CHORLEY PR7 6HJ
Tel: 01257 224444
Fax: 01257 224497

FSS REF: L/01/38
POLICE REF:

MURDER of LEAH FREEMAN - A Review of the Scientific Contribution to the Investigation 22/05/01

I am a BSc, MSc, PhD and a Diplomate of the American Board of Criminalistics. I have been employed as a Forensic Scientist by the Forensic Science Service of the Home Office in the UK for over 25 years. I am currently a Specialist Advisor for major crime. In this capacity, I have carried out many reviews of the scientific contribution to investigations both live and "cold" (ie no longer under active investigation). I have also carried out many similar reviews through association with the National Crime Faculty.

I have been requested by Kris Karcher Chief Deputy Medical Examiner, Coos County and Detective Cal Mitts of the Coos Bay Police Department, to assess the scientific work carried out to date and to identify possible further opportunities for a scientific contribution to the investigation.

Before commencing this review I was given a verbal briefing by the above mentioned, here in the laboratory at Chorley. I have also been given two dossiers containing documentation relating to the case. These consist mainly of police reports but also include some laboratory reports. It would appear that there are other laboratory reports that I have not seen, but I cannot identify how many. I note also that the laboratory reports are confined to brief conclusions only and do not clarify the nature or extent of full examinations. Within the dossiers generally I did not identify an overall summary from the person in overall charge of the investigation.

This has and remains a very difficult enquiry for the investigators, (as is often the case where murder investigations commence as missing person enquiries). Equally, I have

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found this review difficult, mainly due to unfamiliarity with the investigative methods used in Coquille/Coos Bay/North Bend/ Oregon. I also note that most of the information is in the form of officers notes/recollections following discussions with witnesses. This is different from the "direct" witness statements with which I am used to dealing

I would have been able to give a more thorough assessment if I had been able to inspect details of what has been done, and how, in relation to scientific examinations. It is often the case that assumptions and lost opportunities are buried in the detail of the examinations. Furthermore I have not had the benefit of seeing a full listing of all of the available exhibits. Assessment of such a list often highlights items not submitted for examination but which could, still, be of assistance.

CIRCUMSTANCES

I shall not refer to these in detail as I assume they will be familiar to any reader of this report. However the key features are as follows. Leah Freeman disappeared on the 29/6/00. She was last seen about 2100hrs when she left the house of a friend. Her boyfriend Nick McGuffin was due to collect her from that address at that time and arrived shortly after to find her gone. Her body was found on the 03/08/00 in a decomposed state, lying in undergrowth some distance outside town. No cause of death has been established. Leah was due to attend a medical examination the following morning, which had been arranged by her mother in relation to birth control as it was believed that she was sexually active. It is suggested that Leah was very worried about this appointment and did not wish to attend. This has led to questions being posed as to whether she may have been pregnant. McGuffin has been strongly suspected of knowing something about her disappearance but to date no persons have been charged.

A major factor in my considerations is the absence of a cause of death and details of any injuries received by Leah. I note that the press release refers to "keep back" information and that the autopsy report is not on the file. I have no information regarding injuries to Leah ante mortem and in particular cannot assess the likelihood that she may have shed blood. This causes uncertainty in the interpretation of "negative" blood searches and also in relation to the possible value of carrying out

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further such examinations, for example in relation to vehicle trunks, weapons or clothing items. I note that no weapons have been seized for blood searching. However I also note that the cause of death has been attributed to homicidal violence, which suggests there is evidence of possible injuries.

POSSIBLE SCENARIOS

1. Abduction/assault by persons unknown to Leah, and presumably a stranger to the area.
2. Abduction/assault by person(s) known to her and resident in the area.
3. Nick McGuffin is directly responsible for the death of Leah.
4. The above is indirectly responsible in that he "paid" others to remove her. Suggestions from witnesses include Bill Sero and the Robinson brothers.
5. Some sort of accidental death, for example a drug overdose or a bad batch of drugs, followed by hiding of the body to protect others involved in the illegal drug taking and supply.

In my opinion, much of the information within the dossiers appears to be unreliable, being a mixture of mistaken recollection, hearsay, speculation, repetition of rumour and some of it may possibly be based on unsubstantiated or incorrect assumptions. It also appears likely that several witnesses are not telling the truth or at least the whole truth, quite possibly for reasons unconnected with the death of Leah. There obviously may well be those who are telling untruths for reasons very much connected with the death of Leah.

I have distilled out what I regard as key features, in relation to possible scientific contributions.

LEAHS MOVEMENTS

It seems to be accepted that she left the house of Sherry Mitchell at approximately 21.00. She appears to have been seen by a number of persons between then and 21.30, heading through town. *What if this is inaccurate? How reliable are the sightings in town? Was Leah seen for sure by Mitchells mother or were all the conversations and information relayed via Sherry? Do we have any information regarding the time that Leah arrived at and left this address? Nick is confirmed by witnesses as arriving at*

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this address at approximately 21.08, to find Leah gone. Can we be certain that Leah was at this address between 19.00 and 21.00? If not how does this affect the investigation? Was this address examined for possible signs of violence?

THE FINDING OF FIRST SHOE

Circumstances surrounding the finding of this shoe initially seem unlikely. If the witness Messerle is genuine and accurate then this shoe was found at 11.35 ie just over two hours after Leah disappeared. Examination by the laboratory appears to have established by DNA profiling that this was Leahs shoe. This appears to represent an excellent result. Attributing shoes to regular wearers, by DNA testing of areas not visibly stained with body fluids, (ie presumably from cells or sweat left on the shoe during wear), is only rarely successful. However I have no information regarding any numerical estimate of the degree of certainty of this attribution. There is also a minor DNA profile on the shoe from a male. Without knowing from where on the shoe the profile originated I cannot determine the significance of this. However I note that both shoes have been handled by several persons, including the finders, the receiving officers and the family during identification. I am also informed that they have not been continuously stored in an ideal manner for DNA testing.

It appears that the undersole of this shoe was also stained with "medium to high velocity" blood spatter and that this blood has been attributed to Leah. This would appear to be a key finding but difficult to interpret. It is not easy to think of a means by which the shoe could have been stained on the undersurface by such blood whilst being worn. It would also appear to indicate that Leah has suffered an injury causing bloodshed. I would not expect this blood to have survived on the undersurface from some previous incident, though I am conscious that I have not seen the blood or any details of where it was located precisely.

Furthermore, as I understand that Leah usually wore her shoes laced, it is difficult to imagine the shoe being shed at that site without some kind of trauma, such as being knocked over or grabbed and dragged violently. Such an event would not be immediately consistent with McGuffin as the perpetrator as she was going to meet him? It is of course possible that the shoe was planted to give the impression of a stranger abduction but this might suggest some degree of advance planning. Violent

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shedding of the shoe might well have left visible scuffing or damage to the shoe but I have no information as to the condition of the shoes.

If the above findings in relation to the last sighting and the shoe are correct then it would seem that Leah was abducted or assaulted between 21.20 and 23.35.

FINDING OF SECOND SHOE

The circumstances surrounding the finding of this second shoe also seem unlikely. It appears that almost immediately after being aware that the first shoe related to Leah, Deputy Oswald found, "on the road" 15 miles from town a second shoe matching the first. It seems unlikely that this shoe had remained untouched in the road for the two weeks or so since Leahs disappearance. There is no information regarding blood on this shoe. (*In fact I have conflicting information regarding the shoes and have concluded, (possibly incorrectly?), that it was the left shoe that bore the bloodstain and also that it was the left shoe that was found first.*) This second shoe has also been attributed by DNA to Leah. The earlier comments regarding the certainty of this attribution is relevant. I also assume, but would recommend scientific examination to check, that the shoes are indeed a pair.

There is a possibility that this shoe was planted (rather than discarded or lost at the time of Leahs disappearance). The location may be of no significance, but such an action would indicate that persons with access to the shoe were still "in town".

THE FINDING OF THE WHITE SOCK

This event seems even stranger still. This sock was found, by Police Chief Reaves (*on the 14/08/00? ie after the finding of the body and the knowledge that a sock was missing. Who would have known that?*) at a location close to the finding of shoe one. I am also informed that it could not have been at that location since the disappearance of Leah. I am unclear as to whether it matches the one found on the body. If this was Leahs sock then, as above for shoe two, it appears to eliminate a stranger offender, or anyone such as possible suspect Shamblin, who has left town.

I note that DNA profiling on a sock, (exhibit ref 12) gave an unknown male. DNA profiling on a further white sock, (exhibit ref 11), gave a mixture, the major

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component of which was male. What was the condition of the socks? If they had been recently washed and the DNA profile did not come from visibly stained areas, the DNA could be from a handler not a wearer.

Have the DNA profiles from all of the various unknown sources on the socks and shoes been compared with one another? I note that the profile from sock 12 has been checked against the Oregon State DNA database without finding a match? Which of the persons of interest to the investigation is on this database? Have all of the other unknown male profiles generated also been searched against this database? Have the persons known to have been in "contact with" the socks and shoes ie the finders, police officers etc been eliminated?

I have in fact assumed that the sock, referred to in lab reports as exhibit 12, is the one found by Chief Reaves. I have not been able to identify from where sock reference 11 originated. However I was a little confused by reference in the dossier to several white socks. I recall one from the Haga Ranch where Leah had been earlier that day, one from McGuffins home and one from the trunk of the car used at the time in question by Bill Sero. I am unable to find what if anything happened to these socks, though at the time they were each found it was not known that a sock was missing so each must have appeared "out of place" or of possible significance in some way. A report from the laboratory indicates that McGuffin cannot be eliminated as the source of the DNA from sock 11. *Was this the sock found at his house?*

Sock 12 was later resubmitted to the laboratory and examined for extraneous fibres. It does not appear that these fibres have been compared with anything. It is not clear whether the sock has been compared in detail with that found on the body to establish a match. This could be accomplished by comparison of physical appearance, dye constituents and assessment of the degree of similarity of loosely adhering fibres.

THE FINDING OF THE BODY

This was found at a location remote to town and also remote to the second shoe site. I understand that this was an area generally searched previously, but with a poor chance of success due to the density of the undergrowth. It is assumed that the body has been in situ for some considerable time. As the body was decomposed it has not been

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possible to establish whether it had lain there since death or has also lain at some other location after death. It has not been possible to identify a time of death to indicate whether Leah met her death at the time of her disappearance or was alive for some time in between. *Has a consideration been given to the use of entomology to assist? Are any insect samples from the body still available to allow this?*

As referred to earlier, no cause of death has been established. There are no markings or injuries to any part of the skeleton to suggest penetration by gunshot or a knife. There is no damage to the hyoid bones to suggest strangulation and no injury suggestive of her having been hit by a car. It was not possible to determine whether or not she had been pregnant at the time of her death. It was not possible to take intimate samples from the body for testing for semen, or to determine in any other way whether there had been sexual activity prior to death. Nail clippings do not appear to have been taken.

Toxicological testing on samples of muscle indicated no drugs of abuse, but only amphetamines, cocaine and opiate types were investigated. *Has there been any advice from toxicologists as to what further tests could still be carried out on soil from the scene, from the inside of clothing, from any body sample that may be retained or from hair. I am considering for example possible stupefying drugs, or LSD mentioned by some witnesses. Such samples can be detected, but the precise date of ingestion not determined, using head hair, which I know is available.*

I understand that the body has been cremated and that no "body bag" is available. *Is there a list of what samples if any, including tissue samples or slides, are available for possible examination?*

Was the body wearing a watch when found? I note that according to the witness Schroeder a female was shot around the relevant time and a watch recovered. Is the recovered watch available for examination? It is often possible by the latest DNA technology to identify the regular wearer of a watch.

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The scene was of a nature unsuitable to retain marks, for example tyre or footwear, and no blood was found. In view of the elapsed time it was not possible to eliminate an assault having happened at that site

The clothing worn by the deceased has been examined at the Oregon laboratory but only for an assessment of damage. Nothing indicating a stab type cut was found though there are "holes" attributed to animal activity. It is not clear whether the clothing was taped, or debris collected, prior to this examination, though I am informed that the body and clothing were taped at the scene. I have no information as to whether any of these tapings have been examined. I have no information regarding the presence of blood or any other body fluid on the clothing. Indeed I am informed that this has not been considered, as the clothing is not in a suitable condition.

Examination of the tapings and debris for paint particles might allow identification of any vehicle in which the body was transported prior to dumping. Examination of fibres from the tapings might indicate a (vehicle) carpet or be compared with suspect samples. There could be hairs from offenders on the body or clothing. Inspection of the clothing for bloodstaining might allow inference of any injuries and their location. Absence of blood might well suggest there were no injuries causing bloodshed and that the absence of blood on suspect items is of no significance. The distribution of any blood on the clothing might indicate whether she was upright at any stage whilst bleeding. It is also possible that there may be blood from the offender on the clothing.

Inspection of the photographs suggests that the outside of the clothing may be in a condition similar to clothing which has been successfully examined by the FSS on previous occasions. It may therefore be possible to test the outside of the clothing for semen. The testing of the inside for semen may however be more difficult. Owing to anticipated contamination from body tissue the normal screening method may not work. However by extraction of "randomly chosen" areas of the inside of the trousers it might be possible to find any semen that may be present.

If any semen can be found on the clothing I see no major obstacle to carrying out DNA profiling on the semen. Any contamination from DNA of Leah would not represent a problem to identification or comparison of the profile from the semen.

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However, If semen is located on the inside of the trousers, especially in the crutch region, interpretation of its significance may not be straightforward. Semen from a person other than McGuffin may be of clear value to the investigation. Semen from McGuffin may not assist the investigation as it appears to have been established that there he had a sexual relationship with Leah. In such a case the presence of semen, originating from previous acts of intercourse might well be expected on the inside of the trousers of Leah. I was informed that McGuffin says he last had sex with Leah 6 days prior to her disappearance. *Is there any information relating to when the trousers in question were last laundered or washed? And how this was done?*

I am informed that although no knickers/underpants were worn on the body, Leah had been wearing a patterned pair when last seen. This I understand is information from the friend Sherry, though I did not find such in the dossiers supplied. It seems that Leah had changed into running kit to go for a jog with Sherry and then back into her "usual" clothing when Sherry's mother refused to allow this. If this information is reliable it would appear that the trousers of Leah have been removed at some point after her last sighting, **and then replaced without the underwear.** I note that the button at the waist on the trousers is metallic. It may well be possible to obtain a DNA profile from this or the zip. This depends on the condition of these items, but inspection of the photographs suggests that these items may be "relatively uncontaminated". This DNA profile may indicate if any person other than Leah has been in substantial contact with these items, ie by inference fastened them up.

FINDINGS IN RELATION TO McGUFFIN

Details of his movements on the day in question are very conflicting. Witnesses West, Jenkins and Embler state that he was with them earlier in the evening but appear to be an hour out in relation to other witnesses and McGuffin himself. Bartlett and Price, other friends, say he was with them. He appears to have been highly active, and visible, over the 24 hours after 2100 and is said to have been seen in many places. Although some of these statements are conflicting it would appear that he did not have sufficient time, between her last sighting and his first sightings whilst attempting to find her, to meet with her, kill her and dispose of the body. The possibility that the body was in the trunk of his vehicle whilst he was driving around, ostensibly looking for her, cannot be ruled out but seems unlikely. It might be suggested that his

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“frantic” movements represent an over-enthusiastic attempt to establish an alibi because he knew something had happened that he was not physically involved with. I also referred earlier to the reliability of the information from Mitchell. Can the possibility be eliminated that West, Jenkins, Embler are correct and that McGuffin left to look for Leah at 8.00pm. This would give him an hour unaccounted for between 8 and 9 in which he might have encountered Leah.

Nothing of significance appears to have been found in his house although this was searched on July 28, a month after Leahs disappearance and also it is not clear what the search might have been expected to have revealed if he had been involved. Two of his vehicles, the red Thunderbird SMA 836 and the blue Mustang PEA 840 were seized and searched, again some time after Leahs disappearance. Nothing of significance appears to have been found in these vehicles. The scientific examination appears to have included a blood search of the exterior and interior of the vehicles and also of the interior of the trunks. It was noted that the Mustang was missing its trunk liner, and an explanation offered for this was that it had been cleaned because of a petrol leak. These vehicles have been returned to McGuffin.

Conflicting witnesses refer to seeing McGuffin in both of the above vehicles on the evening of Leahs disappearance and also in a further vehicle referred to as a brown pickup, (possibly orange Ford pickup WXY 300?). *This vehicle has not been examined.*

I am unclear as to the extent of the blood searching of the two vehicles. For example was it a visible search only with chemical testing of selected possible stains, or did it involve a general chemical screen? Did it involve stripping down panels and opening up seat belt holders etc. However this degree of thoroughness would only be appropriate if it was considered that a significant amount of blood might have been present initially but that attempts had been made to clean it. There is no information as to whether Leah shed any blood.

If it is considered that Leah may have been placed in the trunk of any of these vehicles it may be more appropriate to examine the trunks for head hairs or the tapings from the clothing for fibres from the trunk interior. Although the Mustang is

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now missing its lining, if that was composed of material which may have shed fibres, then comparisons could still be made of tapings from Leahs clothing with tapings from the trunk.

It is difficult to imagine any other item relating to McGuffin that may assist under the circumstances. Indeed if Leah had been killed by him, by some means not involving bloodshed, it is difficult to imagine any scientific examinations that would assist.

OTHER SUSPECT ITEMS

I note that various items relating to Bill Sero were submitted to the laboratory but that by agreement with the state prosecutor, examinations have been suspended. *Has the sweatshirt allegedly belonging to Sero but allegedly seen in McGuffins vehicle, ever been identified amongst the property of either? I note that the gray BMW 005AKZ (in the possession of Sero at the time) was searched, visibly only, and with the exception of a sock, nothing of apparent significance found. Is that vehicle still available? If so would there be any merit in a laboratory search and examination?*

I also note that various items were recovered from the scene, or vicinity, at which the body was recovered. I have not seen a full list of such items in order to assess the possible value of scientific examinations. I am aware that some of these have been submitted to the laboratory but I do not appear to have a full record of such submissions, nor any indication of the outcome of examinations.

CONCLUSION

Based on the information available to me, of the five possible scenarios outlined at the start of this report none can be scientifically eliminated at this stage, though in my opinion option 4 might fit more easily with the circumstances. In my view there are further scientific examinations which might assist.

RECOMMENDED EXAMINATIONS

1. That the two recovered shoes be examined for scuffing damage that may indicate force was involved in their removal.

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2. That the sock worn by the body be compared with the other recovered socks to establish whether any of them may make a pair. This comparison should include comparison of extraneous fibres recovered from the tapings.
3. That the clothing from the body, (the trousers, top and bra), be examined for blood and semen staining.
4. That selected stains from any blood or semen found be subjected to DNA profiling.
5. That the buttons and zip fastener on the trousers be swabbed for DNA profiling.
6. That control samples from suspects etc only be subjected to DNA profiling in the event of profiles of interest being generated as above.
7. That debris/tapings from the body/clothing, be examined for paint or fibres, particularly carpet fibres. Depending on the outcome of this the vehicles of McGuffin could be re-examined and the trunks taped.
8. That tapings from the clothing of Leah be assessed for human hairs that may have originated from suspects.

Dr John Davison
Specialist Advisor

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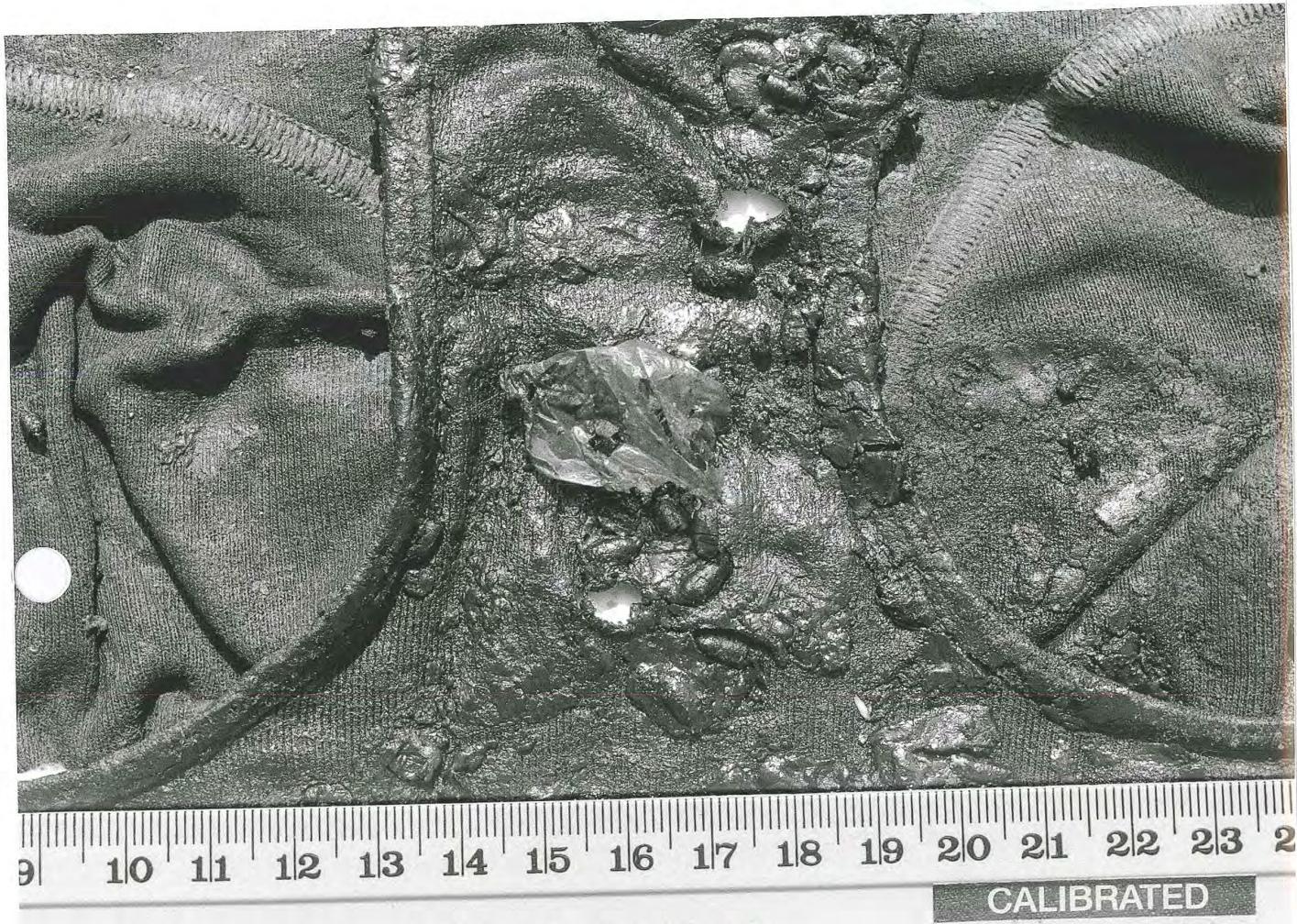
View of back of the sports bra

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View of holes in fabric between shoulder straps at the back of sports bra

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View of front of jeans (NB All holes seen here result of laboratory testing)

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View of area of damage to left side of sports bra

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View of seat/back of jeans Note frayed hole to right leg and fraying on left seat area.

(NB large area from crotch and hole in leg result of laboratory tests)

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View of front of vest

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View of damage lower right front in vest

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View of damage to front left side



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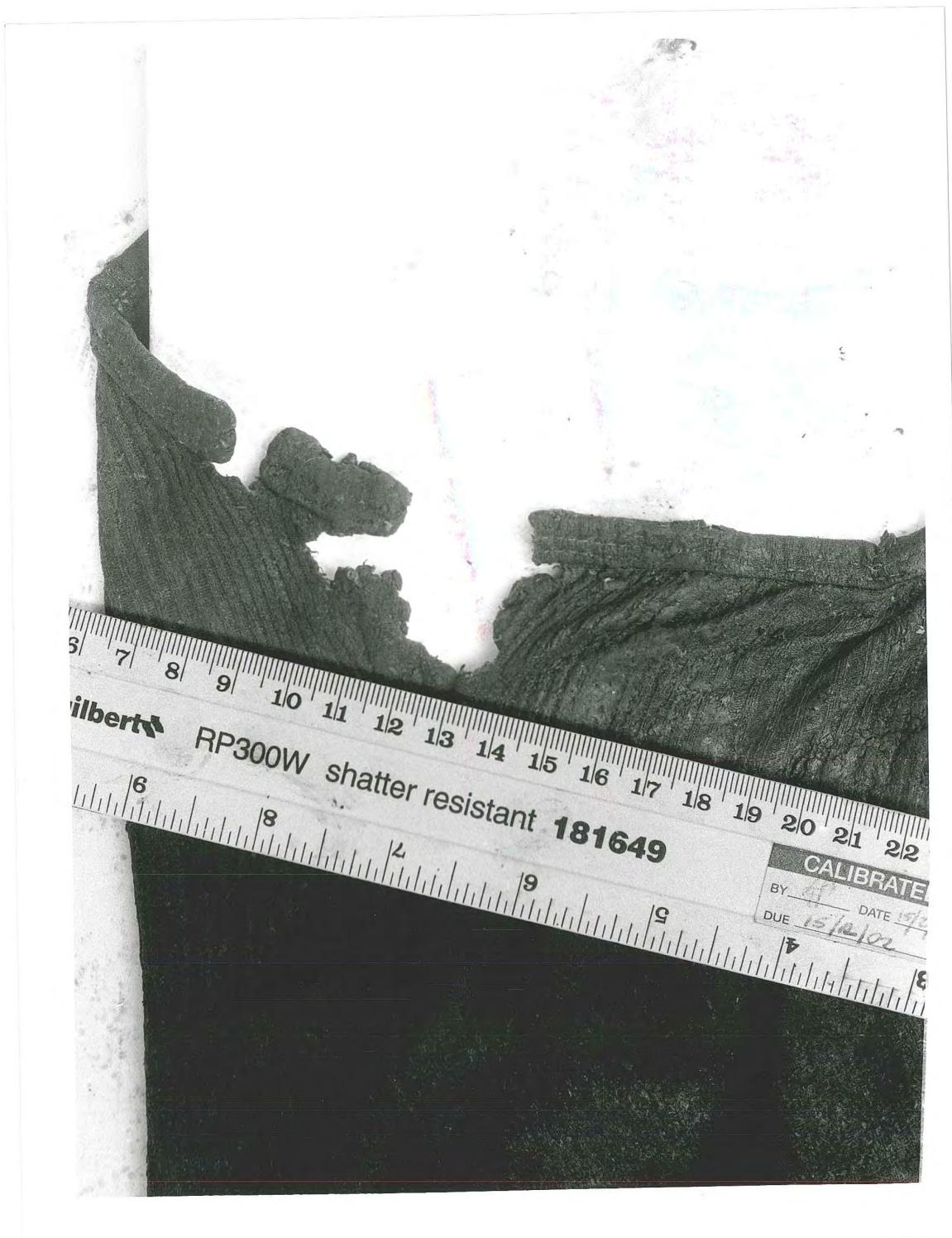
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View of damage to left side

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View of back of vest

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View of shoulder straps at the top of back of vest

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